Chapter 1: Economics and the Market

Standard: The scope of the real estate business

(CIP #08.1701-0101)

Objectives: • Identify real estate terminology.

• Discuss how real estate is at work all around us.

• Discuss real estate as a trend indicator.

• Discuss the variety of supporting activities.

• Explain the impact on other industries.

Scope of the Real Estate Business

Information: Real estate will be the largest investment that most individuals will make in a lifetime. Understanding the scope of the business is critical for anyone choosing to invest for personal reasons or those considering any aspect of real estate as a possible career. The impact on the nation's economy is also an area of considerable importance; new housing starts are the leading trend indicator used by economists. Virtually every business is somehow impacted by the health of residential construction.

Real Estate Terminology:

- 1. **Real estate** involves the development, use, and exchange of real property.
- 2. **Real property** is land and all permanent or "fixed" improvements on it. Examples include: plants and trees; improvements such as swimming pools, landscaping, etc.; and fixtures, such as lighting.
- 3. **Personal property** are things you own like cars, boats, electronics, jewelry, etc.
- 4. **Natural resources** are items such as water, trees, coal, oil and gas that are inherent to a piece of property.
- 5. **Residential real estate** is that part of the real estate business involved with providing homes.
- 6. **Trend indicator** in real estate is the volume of transactions involving real property during a given period of time.
- 7. **Housing** is represented by a broad range of accommodations, including private residences, condominiums, rental properties, shelters, and mobile homes.
- 8. **Acreage** is a parcel or parcels of land measuring 43,560 sq. ft. per acre. The easiest way to remember this number, is by remembering 7-11 (4+3=7; 5+6=11).
- 9. **Investments** in real estate are usually long term (held for at least one year) vs. short term
- 10. **Commercial and industrial real estate** includes stores, hospitals, skyscrapers, factories, warehouses, and farms.
- 11. **Public land** is that held for public use and enjoyment, and cannot be privately owned. Examples of public land includes streets, Forest Service lands, national parks, land managed by the Bureau of Land Management (BLM), lakes and rivers, and public trusts. In some cases, the land may be leased for private use.

The Real Estate Industry is at Work All Around Us

Real estate is a part of everyone's life. It is one of the largest businesses in the United States; it is estimated that two-thirds of the nation's wealth is tied into real estate. Residential annual sales, alone, are in the billions of dollars.

Real Estate as a Trend Indicator

The impact on the nation's economy is also an area of considerable importance; **new housing starts are the leading trend indicator used by economists.** Virtually every business is somehow impacted by the health of residential construction.

Value of real estate is greatly affected by state and national trends. Some markets, such as California, have seen extremes in the rise and fall of values, while most areas are usually more moderately affected.

Real Estate has a Variety of Supporting Activities

"Real Estate" is not just residential. It includes a variety of activities, providing a wide range of interesting career opportunities. Examples of just some of the possible careers are appraisers, sales agents, developers, managers, contractors, etc.

Identify the Impact on Other Industries

The success or failure of many other industries are greatly influenced by real estate. Construction creates a demand for lumber, pipe, nails, roofing, cement, windows, sewers, furnishings, etc. These industries are dependent on the real estate industry; construction creates jobs, and those jobs create more jobs as demands for products and the flow of money increases.

PRACTICAL APPLICATION:

Invite the President of the local Board of Realtors or the City/County Planner to your class and ask them these questions (and more) to assist students in creating a Master Zoning Plan for their community.

- Is industry concentrated in one area? Where are the newest industries located? Why?
- What is the general trend of the growth in our community? Are some neighborhoods growing faster than others? Are any beginning to show signs of decline?
- In what area are the most new homes being built?
- What neighborhoods offer the best living conditions for a growing family? A retired couple? A college student?
- How does traffic flow affect a particular area; business or residential?
- How does our community get our water and electricity? If there is a shortage, how can we accommodate growth?
- What is our plan for protected wilderness areas or animals? Discuss government-owned land and private ownership.

Chapter 1: Economics and the Market

Standard: Nature and characteristics of land

(CIP #08.1701-0102)

Objectives: • Accurately define and understand the definition of real property.

• Discuss the nature of land.

• Understand the physical and economic characteristics of land.

• Identify ways in which land is created.

• Evaluate man's limitations in dealing with land.

Nature and Characteristics of Land

Information: The United States enjoys what is known as an **allodial system**, that allows for the private ownership of real property. Because U.S. citizens have the privilege of owning, working, buying, and selling their own property, it is important that they have an understanding of its nature and unique characteristics.

Real Property

Real property includes the land, all that is under land to the center of the earth, all that is attached to it, and the air space above it to infinity. An owner of a parcel of real property might envision their "space" ownership as a cone, with the tip of the cone touching the center of the earth and extending on forever through the crust of the earth and beyond.

Understand the Nature of Land

Land includes the earth's crust, air rights and mineral rights; the ground with its trees, vegetation, minerals and improvements.

Typical of the improvements that might be part of the land would be any structures (house, barn, office building, etc.), fences, streets, sidewalks, and light posts. When a parcel of land is sold, or in some other way changes ownership, all that is a part of that land, whether man-made or otherwise, is included with that parcel, unless other arrangements have been made.

An example of when any part of the real property may not change ownership when the rest does, includes the following:

Mineral rights may be retained or sold separately from the land. Minerals may be coal, gold or silver, oil, water, or natural gas. A mineral is any naturally occurring substance that may be obtained for man's use. Because the quantities are limited by nature and cannot be man-made, their value is frequently high. If ownership of land does not include these items, it is important the purchaser understands that they must allow the holders of the titles to any of these minerals reasonable access. This may mean that your lovely ranch with rolling green hills may be dotted with oil rigs and access roads should the owner of the mineral rights decide to claim access to what is legally his. This is known as the Law of Capture. Some restrictions may apply, as well as limitations on the number of sites set up to extract these minerals on any one piece of land.

Water is a mineral, but deserves special attention because of its high impact on the value of land. A parcel of land that is purchased without water rights may be worthless until the development of an area brings culinary water to the land. **Water rights** are usually referred to as irrigation rights. An owner may sell a thriving ranch with stables and livestock and plenty of green pastures to one

buyer, and the water rights he owns to a neighboring ranch. Although that water may flow under or through the land before reaching the neighbors, the new owner has no right to its use and can be heavily fined should he attempt to access it. The new owner will then be in a situation where he must attempt to purchase water rights or face the fact that he is now the owner of a dry ranch that will yield only tumbleweeds and sagebrush. Water rights are extremely difficult to find, and if found, can be outrageously expensive in many arid areas.

Physical and Economic Characteristics of Land

The characteristics of land are divided into two categories: physical and economic.

Physical Characteristics:

- 1. **Immobility:** the land is in a fixed location and cannot be moved.
- 2. **Indestructibility:** Although one may change the character of real property, you still have the same amount of land.
- 3. **Heterogeneous/non-homogeneous:** No two parcels of real property are the same.

Economic Characteristics:

- 1. **Relative scarcity:** There is a fixed amount of property, and scarcity adds to its value; the rule of supply and demand.
- 2. **Long-lasting improvements:** Land can be improved or modified, adding to the value of the real property.
- 3. **Location:** Location is referred to as situs, referring to a personal preference for one location over another, and has a definite impact on the value of land.

Ways in Which Land is Created (or Lost)

There are several ways that real property can be added to or lost from that which already exists. Examples of a recent case in which real property was lost in one area and gained in another is the flooding in the Midwest. The flood waters of the Mississippi River not only carried away soil and other elements of the land, but it actually cut new channels through areas. The sediment was then carried down the Mississippi and then deposited in Louisiana. The state of Louisiana continues to grow due to sedimentary deposits, even when flooding does not occur upstream.

Severance is the process of turning real property into personal property by "severing" it from the real property. Example: A Christmas tree growing on a tree farm is considered real property. When that tree is cut down for Christmas, it then becomes personal property.

Avulsion is a form of severance, and involves the sudden and violent tearing away of real property by the action of water, which is carried downstream and deposited elsewhere (see the example above). This is referred to as involuntary alienation.

Accession is the opposite of severance. It is the process of adding to the real property by man or nature.

Improvements is the term used to define additions made by man, such as buildings, utilities, roads, and landscaping. When the additions to real property take place through the actions of nature, particularly water, the process could be:

- 1. **Alluvion:** the gradual addition to the land by the process of water-borne rock, sand, or silt (Louisiana), or
- 2. **Reliction:** when water recedes, permanently exposing land that was previously under water.

Man's Limitations in Dealing with Land

As with all nature, land can be fickle at times. Man can be its ruler and caretaker, but there is much that he will never be able to control. The geography of the planet is evidence in itself of many of the powers that are far beyond the scientific and physical strengths of man. Most changes are subtle, but many violent. An area that is plush with a natural water supply may find itself dry due to even a slight movement of the earth (earthquake) that may cause those resources to be shut off.

PRACTICAL APPLICATION

- 1. On a separate piece of paper diagram the concept of space ownership.
- 2. List at least five items (besides the ones listed above) that you believe are examples of man's limitations in dealing with land. Explain each of your choices.

Chapter 1: Economics and the Market

Standard: The many uses of land

(CIP #08.1701-0103)

Objectives: • Discuss the concept of highest and best use.

- Discuss the most important consideration for each type of land: soil types, weather, view, and access.
- Evaluate trends in the local area involving the transition of use, and determine how these trends affect you.

Performance

Objective: #1. Identify local real estate values and market conditions.

Usage of Land

Information: An individual can look around them and get a pretty good picture of the vast uses of land. Each parcel of land has unique characteristics, whether determined by nature, government regulations, access, geographic location, demands, wants and needs of the people, etc. This makes the usage of land a complex matter. Poor judgement in determining the proper usage of land can have catastrophic consequences.

Highest and Best Use of Land

The first thing an individual must take into consideration when determining the proper course to choose in the use of a parcel of land is **highest and best use.** An investor or developer of a parcel of land will want to know what their <u>greatest net return</u> will be over a period of years.

A parcel of land at the interchange of a freeway would usually yield a higher return if used for commercial or industrial development vs. residential development. Likewise, a parcel of land offering lovely views and located at least several blocks from a busy freeway or busy streets would offer a better net return if developed for luxury homes. These are only a couple of examples of the many choices a developer or investor must make when making a real estate purchase.

The variety of natural landscape can vary dramatically in one area, ranging from hillsides to flatlands; from loamy fertile soil to rocky or sandy soil; from desert landscape to forests; from **urban** (a city or metropolitan area) to **suburban** (a residential district on the outskirts of a city) to **rural** (country). Each of these landscapes offers individual features of their own, giving the prospective developer or owner a unique set of circumstances.

In most developed areas, regulations exist to govern many of the decisions that one makes in the development or use of their property. These restrictions are designed to protect the rights of others as well as the impact on valuable resources. Some of these resources would be air quality, water supply, natural landscape, endangered plant or animal species, etc. These restrictions are high priority items in most areas now experiencing growth and development.

Important Considerations for Each Type of Land

When determining the use of an individual parcel of land, certain items must be taken into consideration. Certain **soil types** cannot support a structure without considerable cost to stabilize it. In the state of Utah, alone, slippage has occurred due to unstable soil conditions along interstate highways, on mountain hillsides, along fault lines, etc. Some soil has an underlying layer of clay that buckles and slides when it is saturated with water--even on flat surfaces--causing any surface improvement to likewise buckle and slide. Many lawsuits have been filed against developers and builders because of these unstable conditions. Consequently, laws have been passed to protect all parties against

future problems. Rocky soil can pose problems of its own when it comes to putting in improvements such as water and sewer lines.

Weather conditions will have a large impact on the usage of land. A parcel of potential farmland in a desert area where there is little rain may not prove to be a wise choice, except for certain crops. Likewise, areas where there is a balance of moisture and sunshine may be an ideal location for a ranch or a farm. Consideration must be given to the type of development of areas where there is a potential for severe weather, such as tornadoes or high wind; lovely view property along a coastline may not be suited for development because of the severity of seasonal weather conditions. A mountainside with a good northern exposure may be an excellent area for the development of a ski resort, whereas the south side of the same mountain may receive very little snow. An area with moderate weather conditions may create the ideal setting for a retirement community. An area prone to flooding may be beautiful most of the year, but a living nightmare the remainder of the year.

The **view** a parcel of land offers can have a major impact on its future development. Whether that view be of a lake, a valley, a mountain, or the city lights, its potential investment return will likely be much higher for residential development than would a parcel of land with no view--or a poor one (ie. looking over an industrial site or an area that is unsightly).

When looking for a parcel of land to put in an industrial or commercial site, a developer will look for one with suitable **access**. This access may be the proximity to a freeway exit, airport, rail spurs, or waterways, depending on the nature of the business. Considerations to keep in mind when developing residential property should include the ease of ingress and regress to and from the property, the proximity to conveniences such as shopping and schools, and the ease of commuting. An area near a college or university may be most ideally suited to the development of high density housing, such as apartments or condominiums.

PRACTICAL APPLICATIONS

Your own community has likely experienced, or is experiencing some changes in the usage of land. These may be caused by residential growth or decline, local economic growth or decline, the influx of different cultural backgrounds, the growth or decline of certain age groups, etc. Carefully evaluate the trends in your community you feel have an affect on you. Type a short (minimum one page) double-spaced report on your findings.

REQUIRED PERFORMANCE COMPETENCY

#1. Identify local real estate values and market conditions.

Chapter 1: Economics and the Market

Standard: Forces influencing the market for land

(CIP #08.1701-0104)

Objectives: • Understand the concept of supply and demand.

• Discuss how employment has an impact on the market for land.

• Discuss government regulations and their impact on the market for land.

• Describe the social environment of your community and its impact on the market for land.

Forces Influencing the Market for Land

Information: The market for land can be influenced by many factors. A parcel of land that seemed to have little value may take on a whole new perspective due to a positive change of circumstances. Likewise, property which held a high value at one point may become close to worthless, due to a variety of circumstances. A wise developer or investor must be alert to changes that may have a lasting impact on their assets.

Supply and Demand

Supply and demand is a very basic concept of real estate. As with any other product, if the demand is great and the supply short, that product may demand a higher price than if the circumstances were reversed.

Houston, Texas, was a prime example of the impact of supply and demand. Prior to the oil crises of the early 1980's, Houston was a thriving city. Huge skyscrapers were constructed to accommodate the demand for commercial office space, giant malls were built, and luxury housing areas were cropping up everywhere. After the oil embargo, economic conditions were such that bankruptcy and foreclosure were household words. Many people lost their jobs, and consequently their homes. The skyscrapers stood vacant, and the formerly bustling malls were quiet. The supply of all types of property far outweighed the demand, and prices dropped dramatically.

Many who had lived in middle-class housing allowed their homes to go into foreclosure or sell at a depressed price, only to turn around and purchase an abandoned luxury home at "fire sale" prices. Fortunately, the 90's have been friendlier to the Houston area than the 80's, and their economy is beginning to stabilize, but it will be several years before they return to the status they once enjoyed. In the meantime, housing prices still remain moderate.

How Employment has an Impact on the Market for Land

The above example of Houston is typical of areas that have suffered economic depression. One of the main causes of this situation is the lack of employment or well-paid positions. Many communities have <u>never</u> enjoyed the "privileged" lifestyles, so their housing prices have always been relatively low. The reverse can also happen. A demand for employees can create a shortage of qualified workers, forcing employers to pay higher wages. This in turn, increases the demand for housing. An increase in the demand for housing then creates a supply problem, pushing prices higher.

Impact of Government Regulations

Government regulations can have a major impact on the market for land. These government agencies may be local (city or county), state, or federal.

Examples of Local Restrictions:

A developer may request specific restrictions for a parcel of land being developed, in order to maintain a certain aesthetic appeal (ie. house styles, parking restrictions, requirements for garages and parking, square footage requirements, etc.) If these are approved by the local planning and zoning commission, they then become requirements for that specific parcel of land, and can be legally enforced. A city may have noise ordinances, restricting the development of land for items such as a race track or stadium. Other local regulations may include zoning of particular areas for a specific purpose, such as commercial, residential, high density residential, mobile home parks, or industrial development. They may also have ordinances restricting the development of flood plain areas and hillsides, or restricting the height of structures (this could be for aesthetic purposes or fire protection purposes).

Examples of State Restrictions:

Some states have riparian (water) laws, restricting the development of land bordering lakes or rivers, while others allow the development of these areas with specific laws to protect the water, shorelines, and species of plants or animals dependant on the water for survival. Other state laws may include clean air requirements, restrictions against certain types of waste disposal, the expansion of universities or colleges, or the right to condemn certain properties (eminent domain) for the expansion of public facilities (ie. schools, and hospitals), and the development or expansion of state-owned highways. Any privately-owned property that is condemned must be purchased at a fair market price, but the value of that land for development may be greatly impacted. A proposed highway may provide access in the future to a parcel of land that may have been otherwise useless, increasing its potential for increased future value; however, a busy highway bordering a previously quiet neighborhood may have some negative consequences.

Federal Government Restrictions:

The federal government has many laws that may be in place to regulate state and/or local agencies. Other federal laws may be specific to a certain area, or designed to protect a particular species of plant or animal. An individual owning a large parcel of land and wishing to develop it, may find themselves unable to do so because of these restrictions. Many court battles have been waged to deal with these matters; some of the most notable in the 90's related to the federal protection of the spotted owl and the desert tortoise. The federal government also has the right to eminent domain for the development of the interstate highway system, communication systems, air traffic patterns, and military installations, just to name a few. Just because a freeway is proposed to run through a parcel of land does not necessarily mean that land will automatically increase in value. If it is decided that an exit ramp is not justified within a reasonable distance, you still have nothing more than an isolated parcel of land—with a freeway running through it. These laws are intended to work to the benefit of the public, but can be challenged if an individual or group believes they have been harmed.

The Social Environment's Impact on the Market for Land

The social environment of a community may make a big difference in the market for land. An area that encourages growth by providing amenities for entertainment and recreation, and inviting new business and development will benefit from higher market prices for land than will a city that has stagnated and does nothing to encourage growth. A city that is clean and has a low crime rate will invite those who take pride in their community. A community that puts emphasis on the elderly will not only attract that group, but also the support industry personnel, such as medical, legal, restauranteurs, etc. These people in turn require additional services such as schools, recreational facilities, shopping, housing, etc., creating a growth potential. A community that likes to "keep to itself" will frequently remain that way, unless they are inadvertently discovered by those to whom that particular lifestyle appeals. Growth patterns, community pride—or lack of pride, crime, a want for privacy, or many other social factors may make a difference in the survival of a community.

PRACTICAL APPLICATION

- 1. The community you live in has a social environment unique to itself.
 (1) Describe how you perceive that environment and its impact on the market for land. (2) Collect material from the local Chamber of Commerce, and discuss with them the environment they are attempting to encourage. Be prepared to share this information with the rest of the class.
- 2. The city planning commission, the local board of realtors, mortgage companies, or other professionals in the industry, can provide you with information about the local growth trends, construction costs, and interest rates. Gather information from individuals in your community and evaluate these items and their impact on the market value of real estate in your community. Be prepared, with supporting documentation, to discuss your findings.

Chapter 1: Economics and the Market

Standard: The importance of understanding the practices of identifying land and legal descriptions.

(CIP #08.1701-0105)

Objectives:

- Understand the purpose and usage of a legal description.
- Identify the five frequently used approaches to describing property.
- Identify the Great Salt Lake Meridian and Base.
- Write a description of property, and be able to draw it.
- Know how to figure acreage in a section of a township.
- Know number of square feet in an acre (43,560 sq. ft.)

Land Description

Information: Whether a real estate professional or an investor, a basic understanding of the standard practices of identifying land and being able to read a legal description can be a means of avoiding some serious problems in real estate transactions.

The Purpose and Usage of a Legal Description

The purpose of a legal description is to separate a particular parcel of land from every other parcel of land by identifying its location and boundaries. If a discrepancy should arise as to a parcel's actual boundaries, a legal description should hold up under the scrutiny of the courts.

A purchaser of property relies upon the professional knowledge of a real estate agent; the agent may therefore be liable for any discrepancy that may arise as to the legal description of the property purchased.

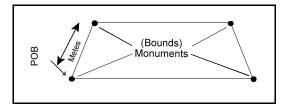
The legal description does not describe the **topography** (varying elevations) of the land nor any **improvements** (buildings, etc.) on the land.

The Five Frequently Used Approaches to Describing Property

The five frequently used approaches to describing property include the following: informal reference; metes and bounds; rectangular survey system; lot, block, and plat (map or subdivision); and assessor's parcel number (in Utah, the Sidwell number).

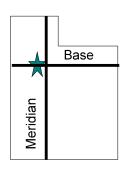
- 1.) The **Informal Reference** approach involves the use of street numbers and names (459 East Dover Lane), coordinates (2590 South 200 East), or place names (The Bar T Ranch). Descriptions such as these are easily understood, and are easy to find; however, they give very little information about the property, such as width, depth, or the location of the actual boundaries.
- 2.) **Metes and Bounds** is the oldest method of land description. In a metes and bounds description, **metes** stands for measures (distance) and **bounds** stands for monuments. The monument, which is an unmovable or solid object (fence, tree, rock, street, etc) establishes the corners and the metes gives the distance between the monuments. (Problem with this method is trees die, fences collapse and roads move).

The metes and bounds approach begins with the "Point of Beginning" (POB), which can be any one of the corners, and can move in any direction from the corner. A surveyor must determine the degree of each angle, starting with the POB, which is O degrees, as well as the direction (North, South, East, West) to



each successive corner. The completed description should total 360 degrees.

- 3.) The **Lot, Block, and Plat** approach to land description is relatively simple, and is most often used in subdivisions. If is often combined with or more of the other forms of land description. Using this method, a lot in a subdivision may be described as Lot 12, Block J, Meadowbrook Subdivision. This form of land description is often used when selling property in a subdivision or development, and sometimes as the land description on a property tax notice.
- 4.) **Property Tax Identification Numbers (Sidwell Numbers)** are used to identify parcels of land in populated areas.
- 5.) The Rectangular Survey or U.S. Government Survey, is not used in all states; however, it is used in Utah and in all of the states surrounding it. Two unseen lines are established by latitude and longitude. The north-south line is called the Meridian, and the east-west line is called the Baseline.



The Great Salt Lake Meridian and Base

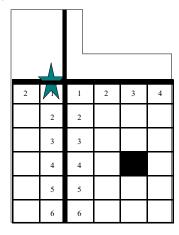
The name of the **principal** meridian and base in Utah, which extends from border to border, is the Great Salt Lake Meridian and Base. It is located on the southwest corner of Temple Square in downtown Salt Lake City (Main St. & South Temple). From this point almost all of the land in Utah is measured or described.

Townships are laid out along the base and meridian lines. A township is six miles on each side, contains 36 square miles, and has a perimeter of 24 miles.

| Township | (6 miles | X | 6 miles) |
|-----------------|----------|---|----------|
| | | | |

| 6 | 5 | 4 | 3 | 2 | 1 |
|----|----|----|----|----|----|
| 7 | 8 | 9 | 10 | 11 | 12 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

Each Section = 1 mile x 1 mile



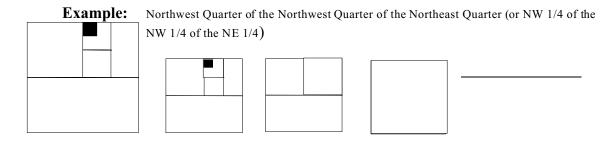
Range Lines = Parallel with Meridian Township Lines = Parallel with Base

 \blacksquare = Township R3E; T4S

*Townships = 6 miles x 6 miles. This graphic is NOT proportionate (but used for explanation purposes only) <u>Townships</u> are divided into **sections**. Each township has 36 sections which are numbered 1-36 in a serpentine manner. (1 in the upper right corner, 6 in the upper left corner, 31 in the lower left corner, and 36 in the lower right corner.) **A section is one mile on each side, contains one square mile**, and has a perimeter of 4 miles. Each section contains 640 acres. (640 acres per square mile.) Sections are then broken into smaller parcels by dividing them into halves or quarters.

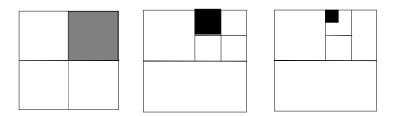
How to Create a Property Description (Written and Drawn)

Two **concepts** which must be understood are: 1) When the map exists and a <u>description is</u> to be written, the first thing written is the beginning, or first segment of the description. This means that the first part of the description is the parcel of land being described. (See the following illustration.)



NW 1/4 of the ... NW 1/4 of the ... NE 1/4

2) When there is a description from which a <u>map is to be drawn</u>, the first thing drawn is determined by the last segment of the description; otherwise, read the description backwards—from right to left—to draw the map.



Figuring Acreage

To determine the number of acres in a parcel of land described in this manner, simply divide the number of acres in a Section (640), by each of the denominators (bottom numbers) of the fractions given in the description.

Example: If the description reads: the Northeast 1/4 of the southwest 1/4 of the East 1/2 of section 29, (NE 1/4 of the SW 1/4 of the E 1/2) the arithmetic would be:

$$640 \div 4 \div 4 \div 2 = 20$$
 acres **Draw a picture of this example**

Don't Forget!

There are 43,560 square feet in an acre, and 5,280 feet in a linear mile.

PRACTICAL APPLICATION

- 1. In order to better understand the concept of dividing townships into sections, draw a square grid and divide it into 36 equal sections. Number each of those sections in a serpentine fashion, beginning with the number 1 in the upper right hand corner.
- 2. Draw the following sections, then figure the amount of acres in each parcel of property:
 - A.) The S $\frac{1}{2}$ of the NW $\frac{1}{4}$
 - B.) The SW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$
 - C.) The NE ¼ of the NW ¼ of the SE ¼ of the SW ¼
- 3. Write the property description for this diagram, then determine the amount of acreage:

